

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : KATO, et al.
Serial No. : To be assigned
Filed : Herewith
For : ENCODING APPARATUS AND METHOD,
RECORDING MEDIUM AND PROGRAM

745 Fifth Avenue
New York, NY 10151

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Date of Deposit December 19, 2001

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Barnet Shindlman
(Typed or printed name of person mailing paper or fee)


(Signature of person mailing paper or fee)

Assistant Commissioner for Patents
Box PCT
Washington, D.C. 20231

REQUEST FOR DRAWING CORRECTIONS

Sir:

Please correct the drawings by replacing original drawing Figs. 78-97 with the attached new Figs. 78-97, respectively.

When the above-identified international application was filed, the drawing figures that were submitted inadvertently included incorrect Figs. 78-97. That the original drawing

figures submitted with the international application were incorrect is readily apparent simply from reading the Brief Description of the Drawings set out in the specification. To correct this inadvertent error, new (correct) Figs. 78-97 are submitted herewith; and the entry of these new drawing figures to replace original Figs. 78-97 is respectfully requested. No new matter is presented. By the present Request, the actual drawing figures now are consistent with and conform to the written description of the drawing figures, as set out in the specification.

Respectfully submitted,

FROMMER LAWRENCE & HAUG LLP

GORDON KESSLER #38,571

By: *Gordon Kessler*
for: William S. Frommer
Reg. No. 25,506
(212) 588-0800

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SYNTAX	NUMBER OF BYTES	ABBREVIATION
menu.thmb/mark.thmb {		
reserved	256	bslbf
Thumbnail()		
for (i=0; i<N1; i++)		
padding_word	16	bslbf
}		

FIG.78

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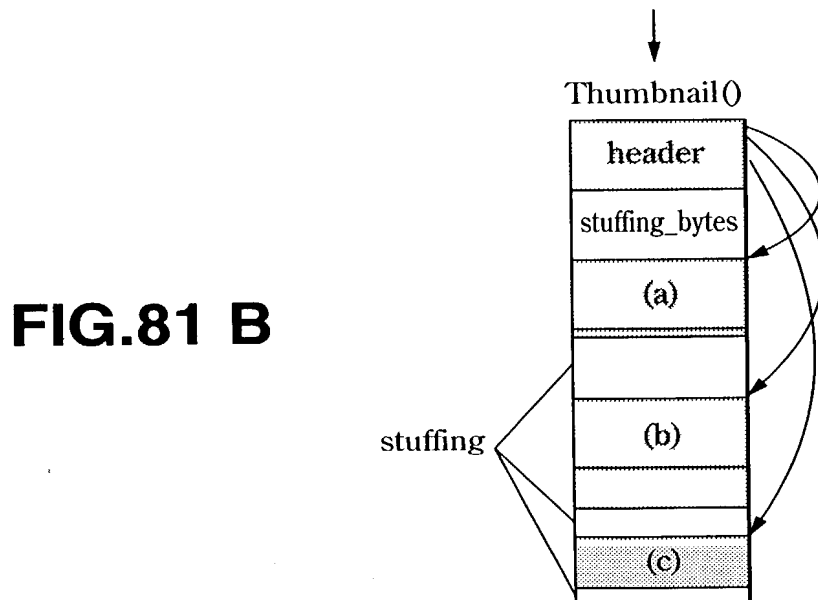
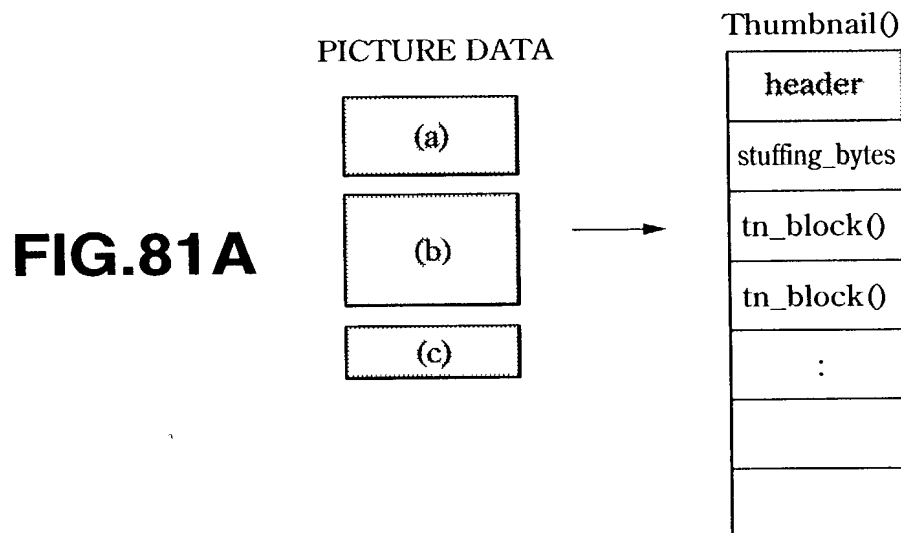
SYNTAX	NUMBER OF BYTES	ABBREVIATION
Thumbnail(){		
version_number	8*4	char
length	32	uimsbf
if (length !=0){		
tn_blocks_start_address	32	bslbf
number_of_thumbnails	16	uimsbf
tn_block_size	16	uimsbf
number_of_tn_blocks	16	uimsbf
reserved	16	bslbf
for (i=0; i<number_of_thumbnails; i++){		
thumbnail_index	16	uimsbf
thumbnail_picture_format	8	bslbf
reserved	8	bslbf
picture_data_size	32	uimsbf
start_tn_block_number	16	uimsbf
x_picture_length	16	uimsbf
y_picture_length	16	uimsbf
reserved	16	uimsbf
}		
stuffing_bytes	8*2*L1	bslbf
for(k=0; k<number_of_tn_blocks; k++){		
tn_block	tn_block_ size*1024*8	
}		
}		
}		

FIG.79

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Thumbnail_picture_format	MEANING
0x00	MPEG-2 Video I-picture
0x01	DCF (restricted JPEG)
0x02	PNG
0x03-0xff	reserved

FIG.80



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DVR MPEG-2 TRANSPORT STREAM

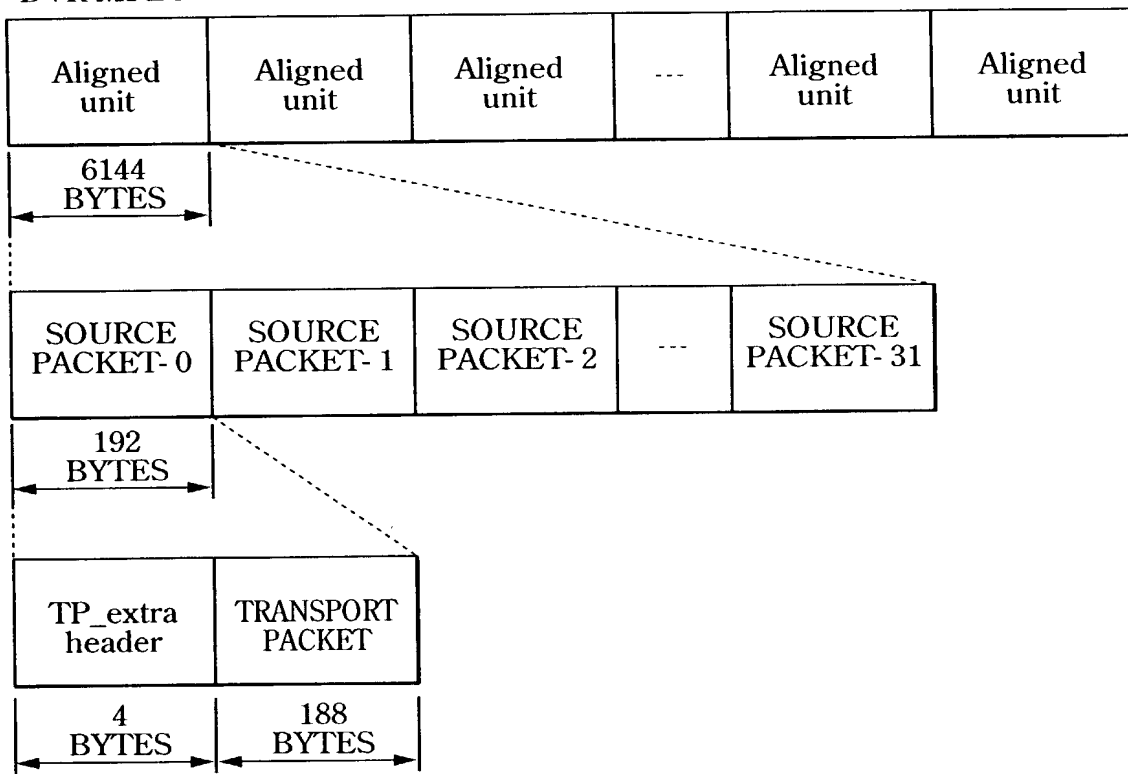


FIG.82

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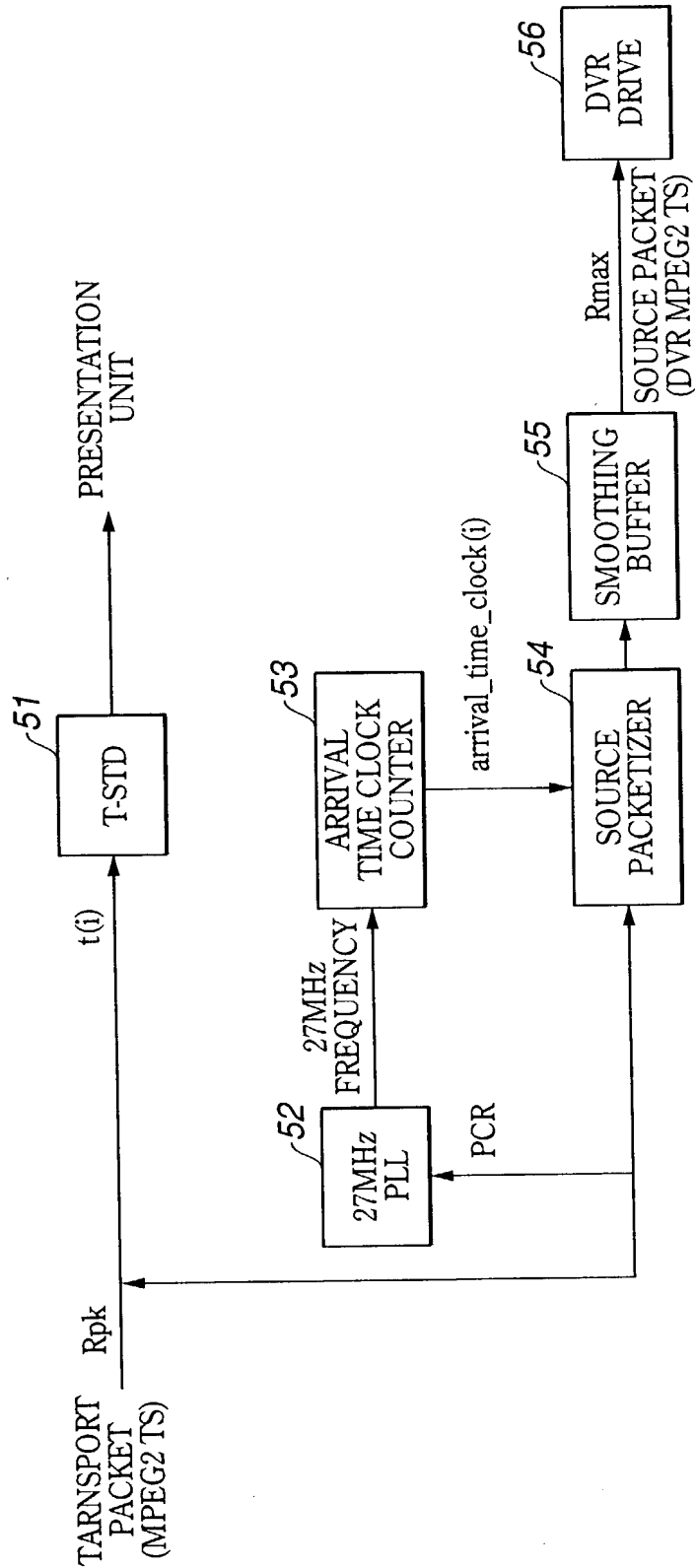


FIG.83

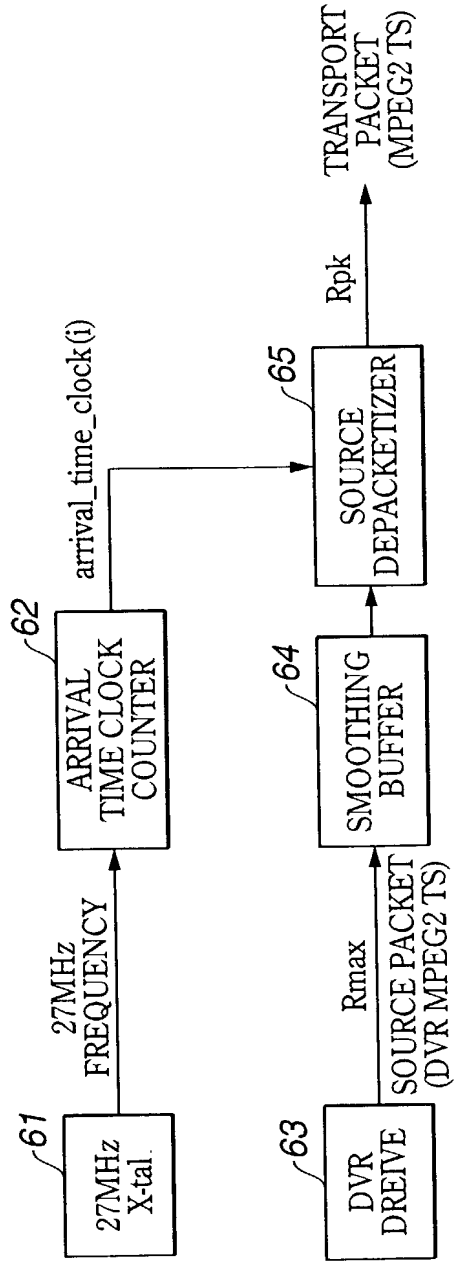


FIG.84

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SYNTAX	NUMBER OF BYTES	ABBREVIATION
source_packet() {		
TP_extra_header()		
transport_packet()		
}		

FIG.85

78/101

SYNTAX	NUMBER OF BYTES	ABBREVIATION
TP_extra_header() {		
copy_permission_indicator	2	uimsbf
arrival_time_stamp	30	uimsbf
}		

FIG.86

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copy_permission _indicator	MEANING
00	copy free
01	no more copy
10	copy once
11	copy prohibited

FIG.87

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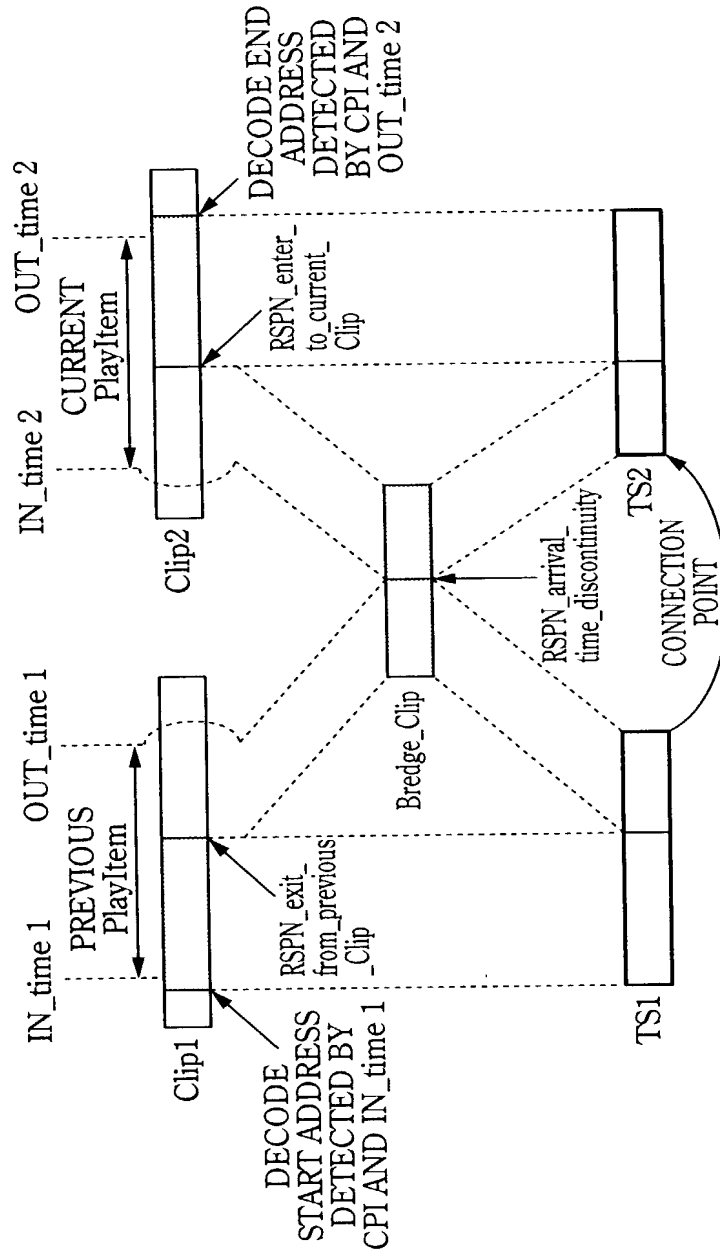


FIG.88

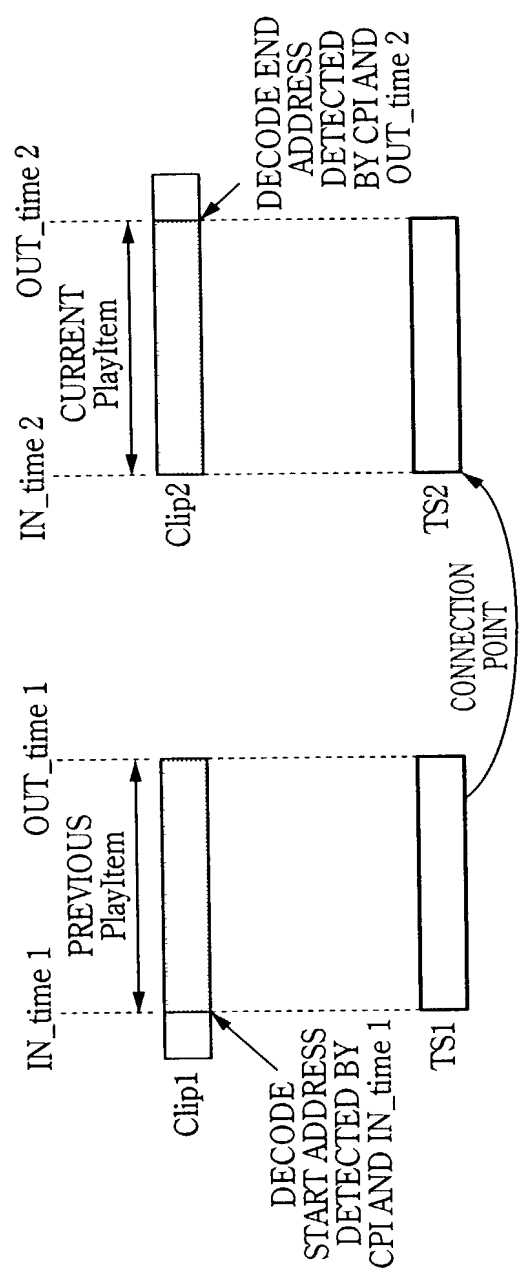


FIG.89

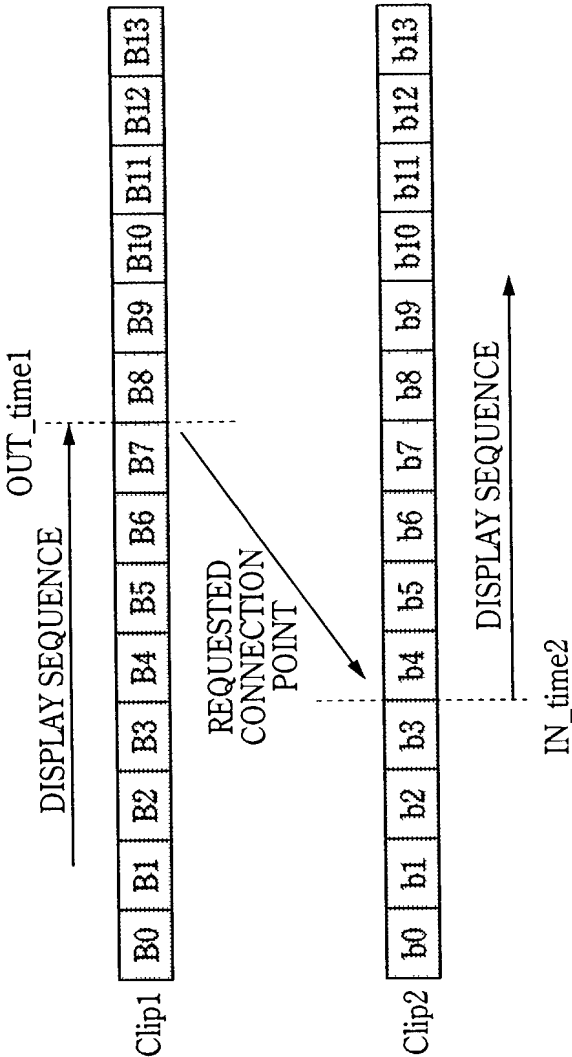


FIG.90

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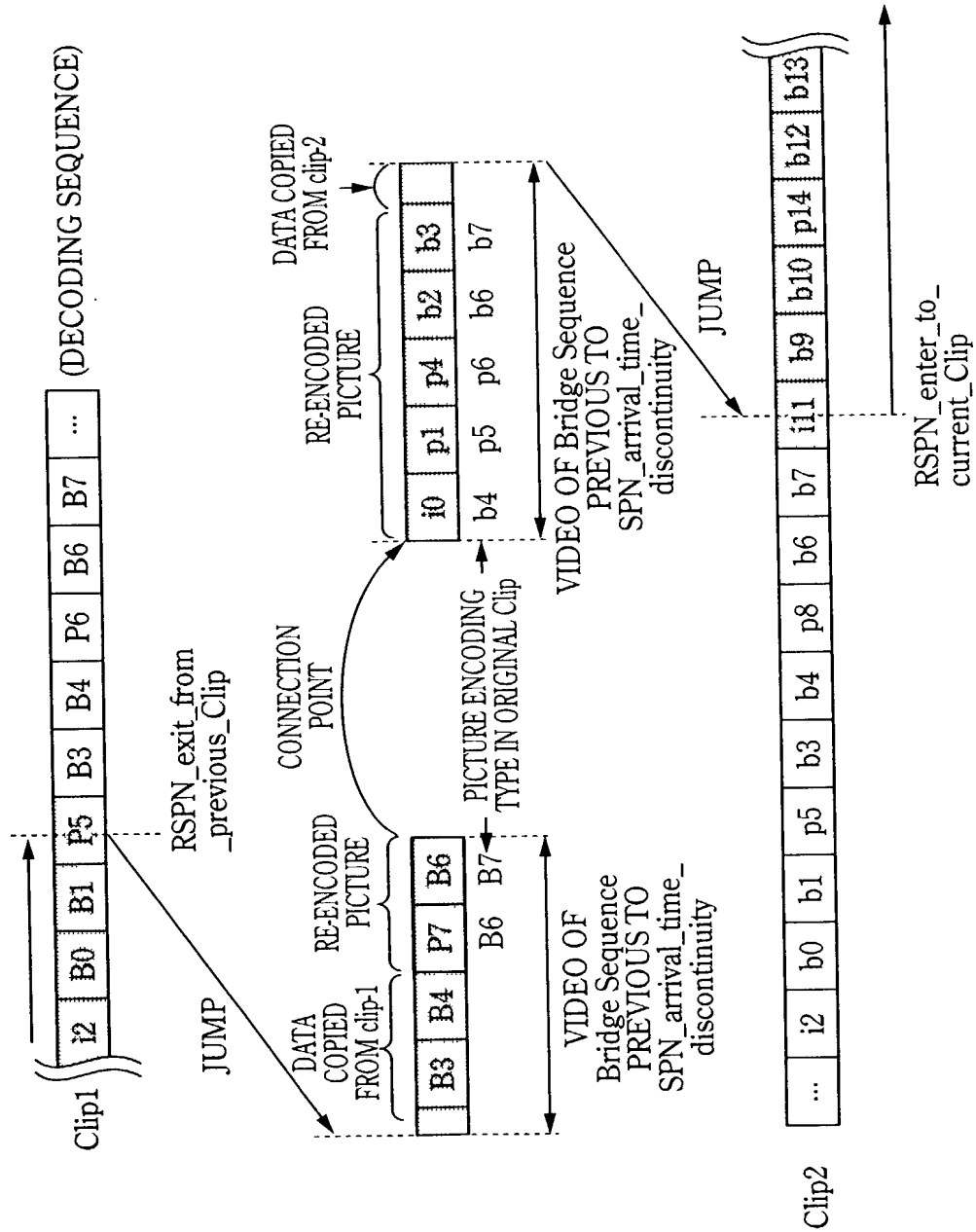


FIG.91

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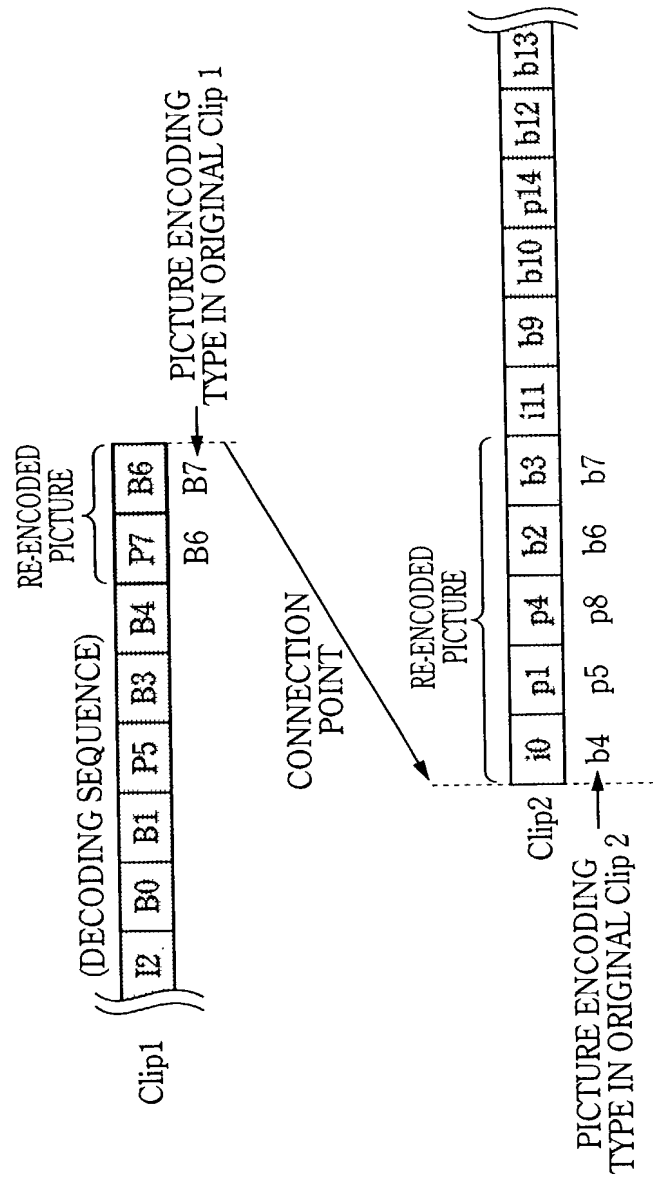


FIG.92

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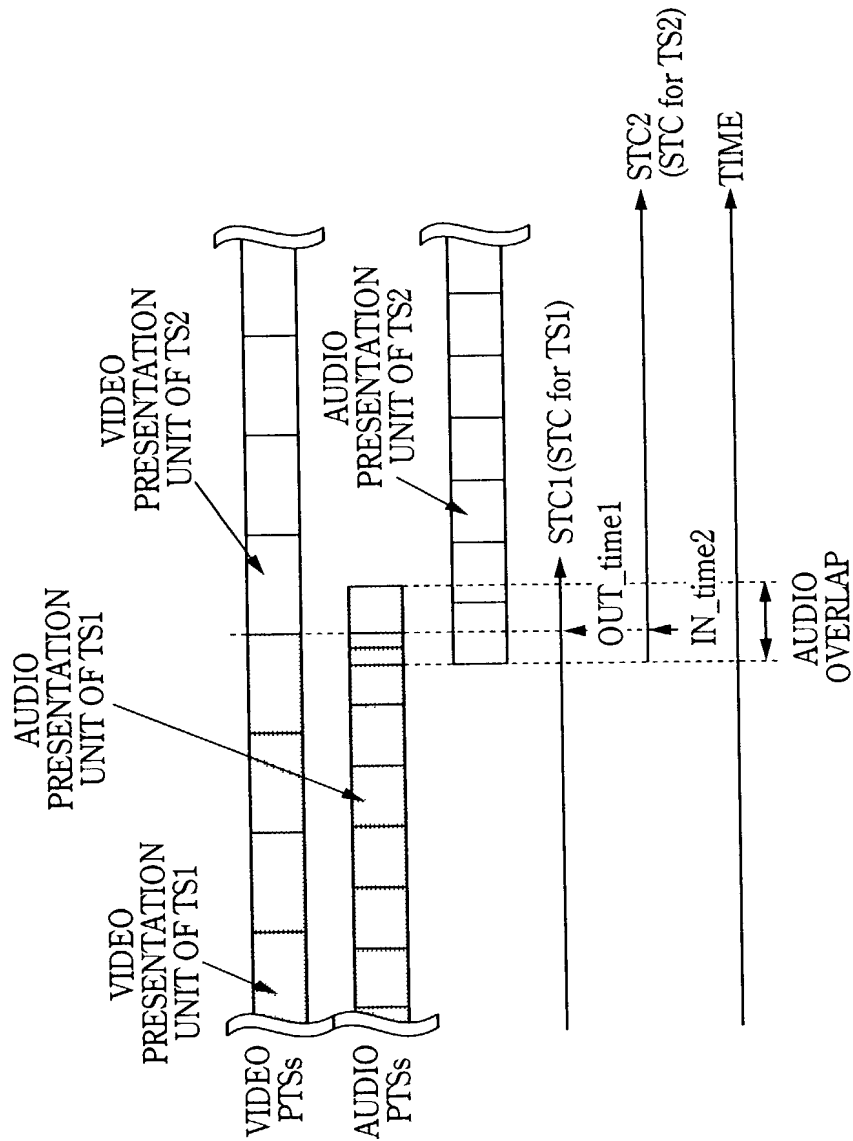


FIG.93

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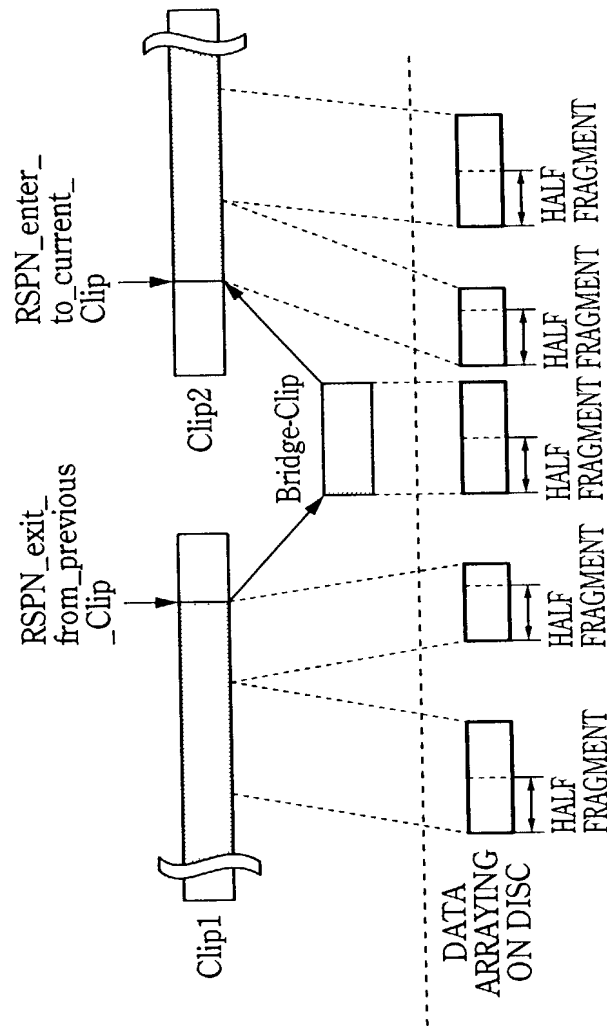


FIG.94

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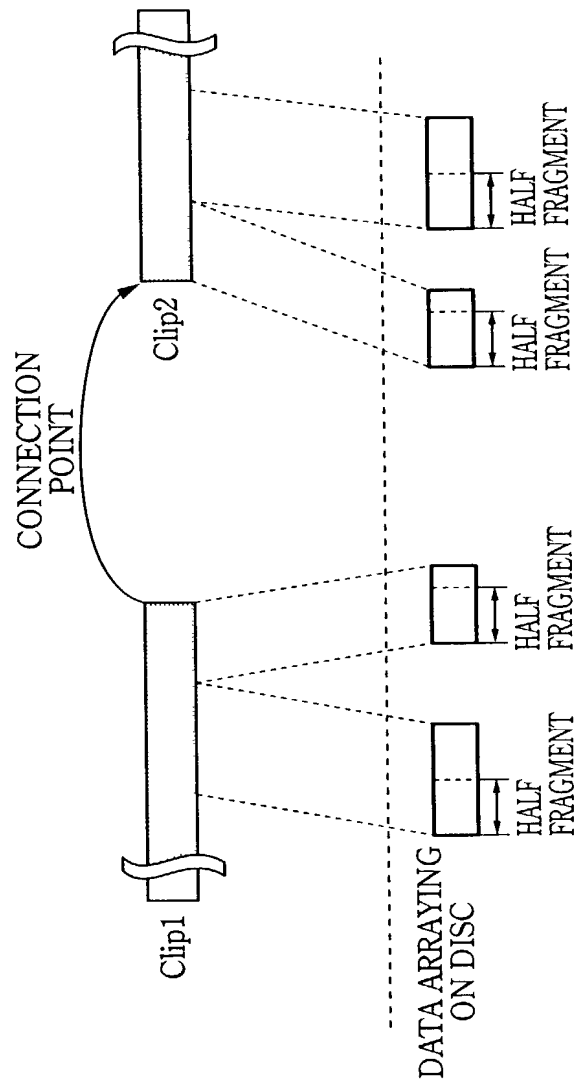


FIG.95

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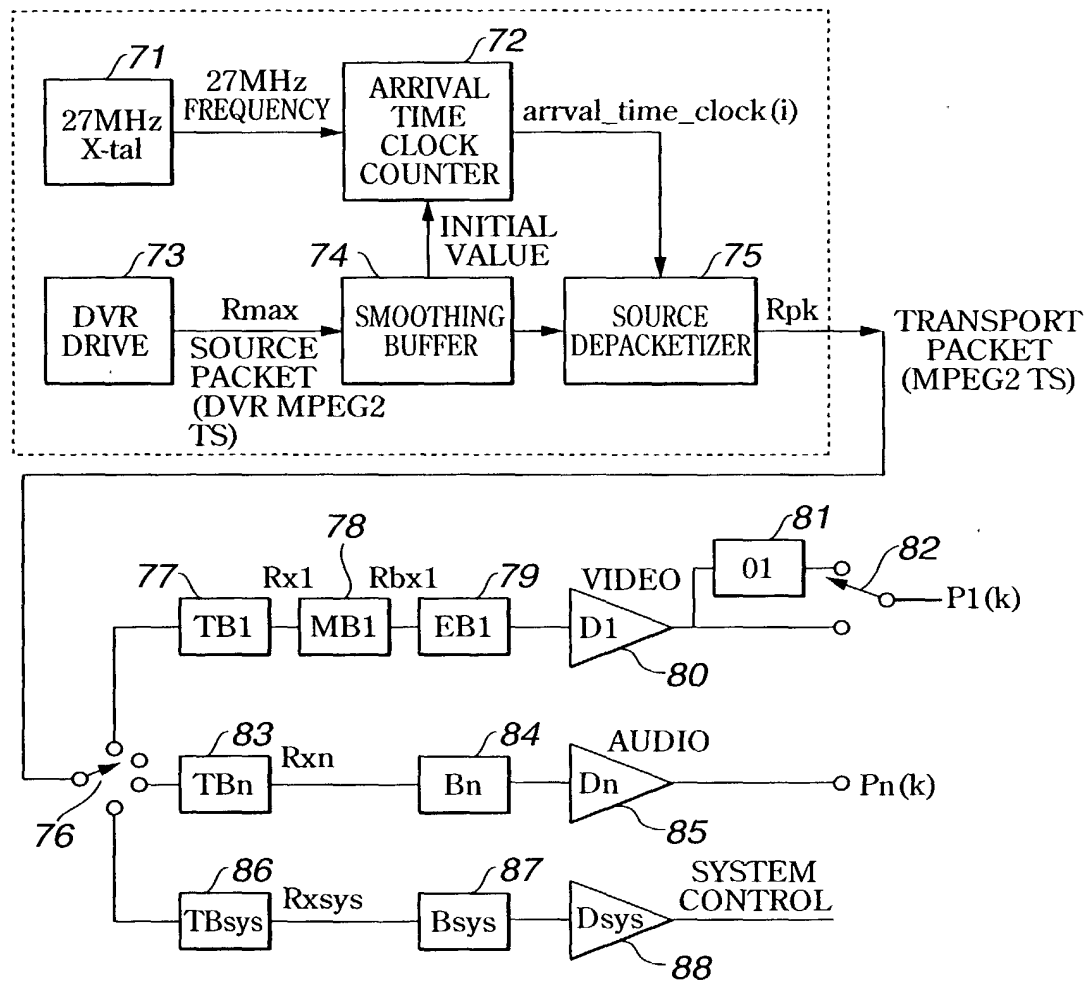


FIG.96

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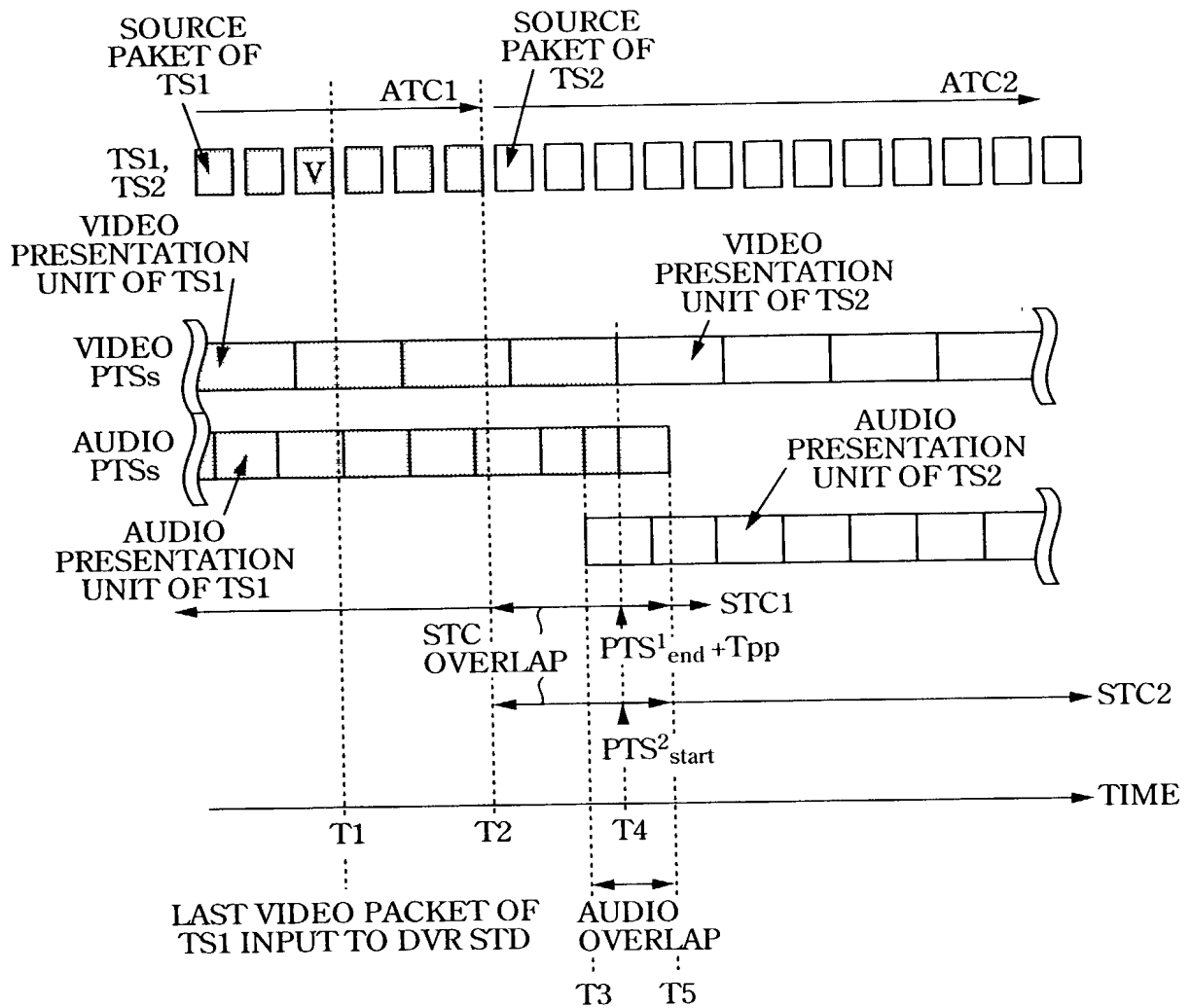


FIG.97

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Barnet Shindelman

(Typed or printed name of person mailing paper or fee)

Barnet Shindelman

(Signature of person mailing paper or fee)

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Box PCT
Washington, D.C. 20231

Sir:

Before the issuance of the first Office Action, please amend the above-identified application as follows:

IN THE DRAWINGS:

Please replace drawing Figures 78-97 with the new drawing Figures 78-97, as submitted in the enclosed Request for Approval of Drawing Changes.

IN THE CLAIMS:

Claims 3, 4 and 6 have been amended as follows:

3. (Amended) The encoding apparatus according to claim 14 wherein said controller verifies whether or not the stuffing bytes will be encoded depending on the amount of data generated in encoding respective pictures.

4. (Amended) The encoding apparatus according to claim 14 wherein said controller manages control of encoding the stuffing bytes so that no overflow will be produced in the VBV buffer.

6. (Amended) The encoding apparatus according to claim 15 wherein said controller generates additional information indicating whether or not the encoding mode is such encoding mode in which the amount of said picture coding data is substantially proportionate to the lapse of time.

Also, please cancel claims 1, 2, 5, 7, 8, 9, 10, 11 and 12 and add the following new claims 13-20:

13. An encoding apparatus for encoding picture data, comprising:
an encoder for encoding said picture data at a variable rate; and
a controller having an encoding mode in which the volume of encoded data is substantially proportionate to the elapsed time and another encoding mode in which it is not guaranteed that the volume of encoded picture data is proportionate to the elapsed time, said controller controlling the volume of encoded picture data depending on the pertinent encoding mode.

14. The encoding apparatus according to claim 13 wherein said controller manages control so that stuffing bytes will be encoded if the amount of said picture coding data generated per unit time is less than a preset value.

15. The encoding apparatus according to claim 13 wherein said controller manages control to perform encoding in an encoding mode in which the amount of said

picture coding data generated is substantially proportionate to the lapse of time within a preset error range.

16. An encoding method for encoding picture data, comprising:
an encoding step of encoding said picture data at a variable rate; and
a controlling step having an encoding mode in which the volume of encoded data is substantially proportionate to the elapsed time and another encoding mode in which it is not guaranteed that the volume of encoded picture data is proportionate to the elapsed time, said controlling step controlling the volume of encoded picture data depending on the pertinent encoding mode.

17. A recording medium having recorded thereon a computer-readable program used for controlling an encoding apparatus encoding picture data; said program comprising:

- an encoding step of encoding said picture data at a variable rate; and
- a controlling step having an encoding mode in which the volume of encoded data is substantially proportionate to the elapsed time and another encoding mode in which it is not guaranteed that the volume of encoded picture data is proportionate to the elapsed time, said controlling step controlling the volume of encoded picture data depending on the pertinent encoding mode.

18. A program for causing a computer controlling an encoding apparatus encoding picture data to execute

an encoding step of encoding said picture data at a variable rate; and

a controlling step having an encoding mode in which the volume of encoded data is substantially proportionate to the elapsed time and another encoding mode in which it is not guaranteed that the volume of encoded picture data is proportionate to the elapsed time, said controlling step controlling the volume of encoded picture data depending on the pertinent encoding mode.

19. A recording medium having picture data recorded thereon, said recording medium having recorded thereon an AV stream file including said picture data and audio data associated with said picture data; and

“Version with markings to show changes made”

3. The encoding apparatus according to claim 2 14 wherein said controller verifies whether or not the stuffing bytes will be encoded depending on the amount of data generated in encoding respective pictures.

4. The encoding apparatus according to claim 2 14 wherein said controller manages control of encoding the stuffing bytes so that no overflow will be produced in the VBV buffer.

6. The encoding apparatus according to claim 5 15 wherein said controller generates additional information indicating whether or not the encoding mode is such encoding mode in which the amount of said picture coding data is substantially proportionate to the lapse of time.